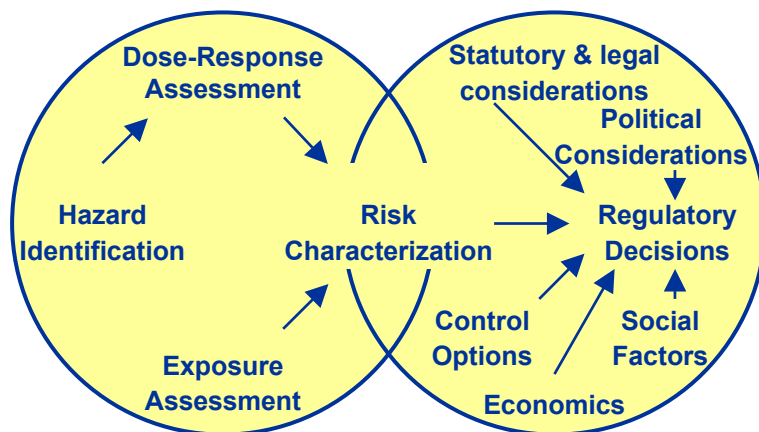


Alignment of ORD Labs with Risk Paradigm

Risk Assessment Risk Management



National Exposure Research Laboratory

Research to measure, characterize & assess exposures and to support compliance with environmental regulations and policies

National Health and Environmental Effects Research Laboratory

Research to identify hazards & characterize "Dose-Response"

National Center for Environmental Assessment

Risk characterization & research on risk assessment methods

National Risk Management Research Laboratory

Research & technology transfer to prevent, mitigate & control pollution

National Center for Environmental Research

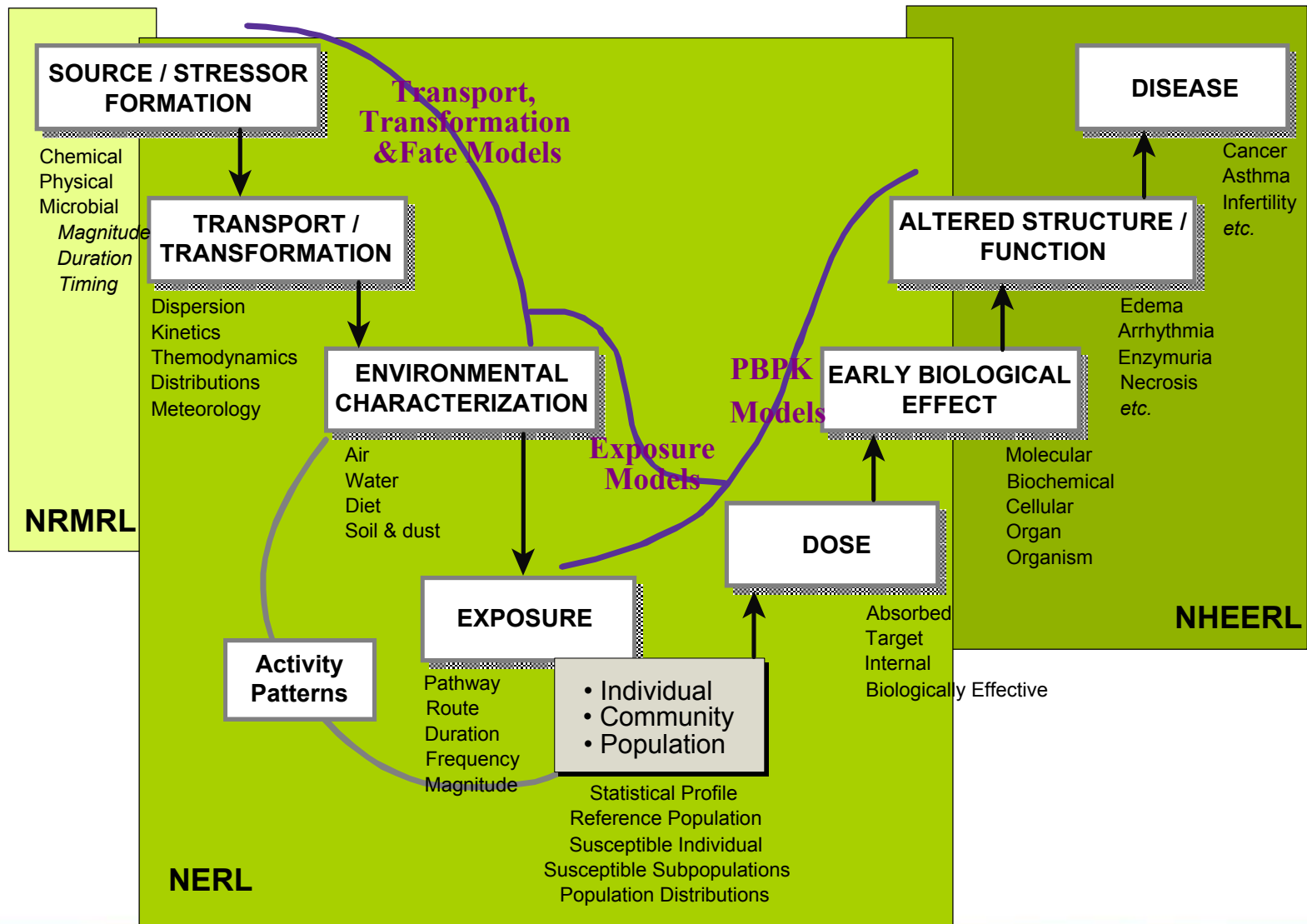
Extramural program - grants, fellowships, & national centers of excellence - to complement ORD's intramural program



RESEARCH & DEVELOPMENT

Building a scientific foundation for sound environmental decisions

Role of ORD Labs in the Source-Exposure-Dose-Effects Continuum



RESEARCH & DEVELOPMENT

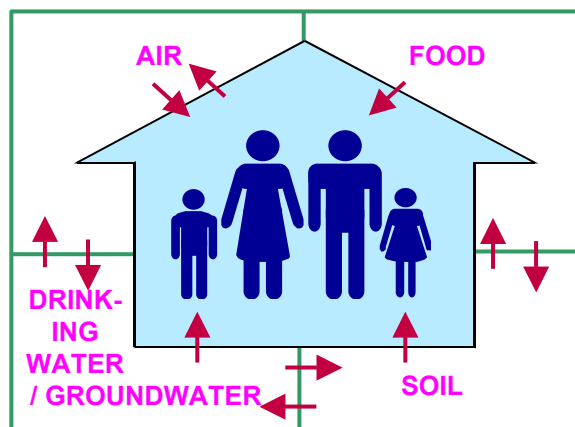
Building a scientific foundation for sound environmental decisions



Exposure: Definitions

- **Exposure**

- Contact of a chemical, physical, or biological agent with the outer boundary of an organism.
 - Exposure is quantified as the concentration of the agent in the medium in contact, integrated over the time duration of that contact.



- **Exposure Route**

- The way a chemical or pollutant enters an organism after contact, e.g., by ingestion, inhalation or dermal absorption